

# AC-COUPLED BURST MODE RECEIVER WITH WIDE DYNAMIC RANGE

## ABSTRACT OF THE DISCLOSURE

An apparatus and method is disclosed for receiving packets having a wide dynamic range of power levels over a shared medium in a communications system. The receiver responds to a packet with a different power level within an inter-packet time and maintains a constant logic level for a long string of ‘ones’ or ‘zeros’ within a packet. An AC-coupled pre-amplifier provides a voltage signal having a slowly decaying power level for a long string of ‘ones’ or ‘zeros’ within the packet. A differential amplifier with hysteresis, ignores the slowly decaying power level of a long string of ‘ones’ or ‘zeros’ within the packet and does not overwrite the power level of the long string until it detects the end of the string.